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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/757,971	01/10/2001	Kamal Emile Dimitri	TUC920000072 US1	8350

7590 06/09/2004

Dale F. Regelman
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EXAMINER

SHAPIRO, JEFFERY A

ART UNIT	PAPER NUMBER
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3653

DATE MAILED: 06/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/757,971

Applicant(s)

DIMITRI ET AL.

Examiner

Jeffrey A. Shapiro

Art Unit

3653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 January 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/1/04 has been entered.

Drawings

2. The drawings are objected to because it appears that the Cartesian coordinate system illustrated in the figures is not consistently placed in the same orientation with respect to each figure. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1, 10 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear how the movable rail interacts with the rest of the system elements.

For example, "a movable rail system" is recited as existing in the automated data

storage system, but it is not clear what structural relationship it has to the rest of the system. For example, does the robotic manipulator move on these rails? If so, when does this happen, at the same time the robot is moving in another axis, so as to obtain a compound movement? Does the entire lifting servo section move on these movable rails?

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moyoyama et al (6,022,180) in view of Kanetsuku et al, and further in view of Ostwald. Moyoyama et al discloses the following.

As described in Claims 1, 10, 11 or 19;

1. an automated data storage system for storing and accessing a plurality of data storage media stored in a plurality of storage slots, said automated data storage system having at least one data storage drive for receiving said data storage media and reading and/or writing data thereon (see abstract, for example);
2. a first media storage library (4) having a first rail system (8);

3. a garage (2 or 3) disposed adjacent said first media storage library, said garage having a (movable) rail system (8) disposed therein; (note that it would have been obvious to provide a garage that encompassed said movable rail system adjacent said media library so as to provide a place for an accessor to reside—see Ostwald et al, abstract, lines 5-9 and 14-end—the reason would have been to allow the switching of the robots (7) of Moyoyama et al to another rail servicing another library unit—note that Moyoyama et al and Ostwald et al are considered to be analogous as they both concern the data media library accessing and storing art.)
4. one or a plurality of accessors (7) for accessing and transporting said data storage media between said storage slots and said data storage drive;
5. said one or a plurality of accessors is moveably disposed on the first rail system or on said movable rail system;
- 5a. said one or a plurality of accessors comprise a vertical pillar (7c), a lifting servo section (7k) movably disposed on said lifting servo section;
6. said movable rail system can be positioned such that said one or a plurality of accessors can move between said first rail system and said movable rail system (see figure 1 of Ostwald, for example);

As described in Claims 2 and 20;

7. said first rail system further comprises a proximal end and a distal end (note that said rails of said first rail system have two ends);

8. said movable rail system further comprises a first end and a second end (note that said rails of said movable rail system have two ends);

*9. said first end can be positioned to be substantially collinear with said proximal end such that said one or a plurality of accessors can move between said first rail system and said movable rail system (note that the ends of rails of the movable rail system can be moved adjacent to a set of non-movable rails from the first system—see figure 1 of Ostwald);

As described in Claims 3, 12 and 21;

10. said movable rail system further comprises a first positioning apparatus disposed on said first end and a second positioning apparatus disposed on said second end (note that motors (see Ostwald, elements (111-113) combined with a belt and pulley at the other end of a movable rail system provides positioning capability for the movable rails—note also that these ends can also be construed as the first and second ends recited in Claims 2 and 20);

As described in Claims 4 and 13;

11. said movable rail system comprises two parallel rails (see Ostwald, elements (125 and 126));

As described in Claims 5 and 14;

12. said movable rail system comprises a plurality of paired parallel rails, wherein each of said paired parallel rails has a first end and a second end (see figure 1 of Ostwald, noting that the rails of one elevator

system are located next to a second set of moving rails located on the other elevator system. Note also that it would be obvious to provide several pairs of rails driven by one motor/pulley drive system—the reason would be to provide greater movement capacity and throughput. Note also that having one single rail pair access several stationary pairs of rails is a functional equivalent of Applicants' moving rail system where multiple rails move to meet an apparent single pair of rails);

As described in Claims 6, 15 and 22;

13. each of said pairs of parallel rails further comprises a first positioning apparatus disposed on its first end and a second positioning apparatus disposed on its second end (note that the pairs of parallel rails of Ostwald et al are considered to be functional equivalents of Applicants' positioning apparatus and movable rails);

As described in Claims 7 and 16;

14. said garage further comprises one or a plurality of doors (note that it would be obvious to provide a set of doors on said garage so as to provide access to the movable rail systems and accessors for maintenance as well as to keep the system free from contamination);

As described in Claims 8 and 17;

15. said first and second rail systems comprises two parallel rails (see Ostwald, figure 1);

As described in Claims 9 and 18;

16. one or a plurality of movable media storage devices (see Ostwald, figure 1, element (102));

Note that Ostwald appears to read on applicant's independent claims as follows;

A movable rail system (140) comprising a plurality of movable sets of rails, wherein each movable set of rails can be moved bidirectionally along a third axis (note that the third axis is up and down and that the stationary rails (121) allow movement perpendicular to the direction in which the movable rails move, and that a third axis exists along which the cartridge picker moves in and out of the storage cell along another functionally equivalent movement axis), wherein said third axis is perpendicular to both said first axis and said second axis.

Conclusion

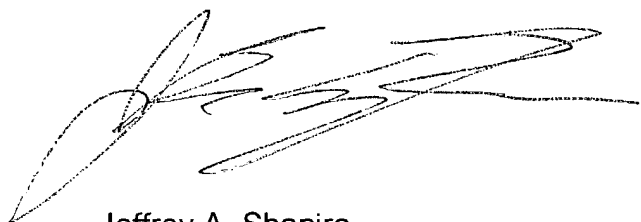
7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gauss et al (US 6,129,027); Heller et al (US 6,097,566); Beal et al (US 6,377,419 B1); and Younglove (US 5,059,772) are cited as storage libraries that have cartridge pickers moving on three axes. For example, see Claim 1 of Beal. Note also abstract, lines 5, 6 of Gauss, which describes a working unit moving on bearing rails in three axes.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey A. Shapiro whose telephone number is

(703)308-3423. The examiner can normally be reached on Monday-Friday, 9:00 AM-5:00 PM.

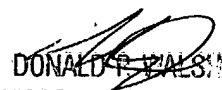
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald P. Walsh can be reached on (703)306-4173. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jeffrey A. Shapiro
Examiner
Art Unit 3653

May 31, 2004



DONALD P. WALSH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600